

Appl. No. : 10/619,796
Filed : July 15, 2003

REMARKS

The foregoing amendments are responsive to the Office Action dated March 5, 2009. Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and the following remarks.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Response to Objection of Claim 9

Claim 9 has been modified to replace "locations locations" by "locations".

Response to Rejection of Claims 9-14, 17-20, 26 and 40-44 Under 35 U.S.C. 112 Second Paragraph

The Examiner states, "it is unclear how a block-sparse decomposed matrix only (i.e., a matrix contains substantially sparse block having non zero elements) may be used to *find* electric currents (i.e. moving of electric charges)."

The Examiner further states, "Therefore, the recited limitation at the end of claim 9, 'said electric currents *modeling* said electromagnetic effects' implies some form of relatedness between the recited device and the recited electric currents and which is unclear." Claims 10-14, 17-20, 26, and 40-41 depend on Claim 9.

Applicant has clarified Claim 9 to recite "to compute electric currents" rather than "to find electric currents" The Examiner states, "it is unclear how a block-sparse matrix only ..." but there is no limitation that "only" a block-sparse matrix is used to find the electric currents. For example, in the application as filed pages 25-32 describe an embodiment that uses a computer configured to put numbers describing electromagnetic effects into a matrix, transforming that matrix and to produce a solution describing electric currents. This embodiment is also described in the flow chart in Figure 10.

Applicant asserts that relatedness between the recited device and the recited electric current is described by the recited use of the matrix on a processor and by embodiments described in the specification that use such a matrix to describe electromagnetic effects due to an electric current.

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Response to Rejection of Claim 26 Under 35 U.S.C. 112 Second Paragraph

The Examiner states that there is insufficient antecedent basis for “said first block” in Claim 26. Claim 26 has been canceled.

Response to Rejection of Claims 42-44 Under 35 U.S.C. 112 Second Paragraph

Claims 42-44 have been amended to correct the antecedent basis issues identified by the Examiner.

Response to Rejection of Claims 9-14, 17-24, 26 and 30-44 Under 35 U.S.C. 101

The Examiner rejected Claims 9-14, 17-24, 26 and 30-44 under 35 U.S.C. 101 because the invention disclosed in the claims is directed to non-statutory subject matter. Claim 26 has been canceled. On Page 7 of the Office Action of March 5, 2009, in Section 10-1 the Examiner states, “The arguments of Applicant’s intention to limit the ‘physical sources’ including only sources that produce a ‘physical effect’ do not appear to have support in the original disclosure because the argued ‘physical effect’ has not been specifically defined in the specification as argued.”

The embodiment described on Pages 25-33 of the application as filed describes computing fictitious sources and then using those fictitious sources to compute an electric current. This embodiment refers to Figure 10, which describes a flow chart. On Figure 10 step (1014) describes computing fictitious sources Y. Then, according to this embodiment in step (1015) a permuted description of the electric current is found as J’. In step (1016) this permutation is removed to produce an actual electric current J. Other physical effects are also described in the specification.

In the Office Action of October 8, 2008 the Examiner states (Page 5, lines 3-5) “Therefore, the claimed subject matter is directed to manipulation of abstract ideas including those fictitious sources (e.g. a number, a formula, expression, etc.,) and/or the effects of those fictitious sources. In other words, the claimed subject matter is so broad such that it does not provide or require a practical application.” In the Office Action of June 20, 2008, the Examiner concluded, “In other words, the manipulation on abstractions just cannot produce a tangible result.”

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Thus, in this context Applicant argued (in his response of February 9, 2009) that if a physical effect was computed using fictitious sources, then it is clear that the fictitious sources are used to describe a physical effect. Numerous examples of the use of such sources to produce physical results were given in the specification.

The correct analysis does not inquire whether it is possible to apply one of the several claimed steps in a way that does not produce a claimed result. The correct analysis is to notice whether the specification enables the claimed result. Numerous embodiments within the specification describe how to use fictitious sources to compute real physical effects.

Response to Recommendations regarding Claims 9 and 23

Applicant has clarified the wording of Claims 9 and 23 as recommended by the Examiner.

Applicant asserts that Claims 9-14, 17-24 and 30-44 are directed to statutory subject matter and allowable over the prior art. Accordingly, Applicant respectfully requests allowance of Claims 9-14, 17-24 and 30-44.

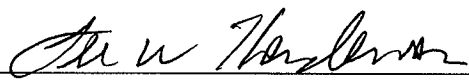
Summary

Applicant respectfully assert that Claims 9-14, 17-24 and 30-44 are allowable over the prior art, and Applicant request allowance of Claims 9-14, 17-24, and 30-44. If there are any remaining issues that can be resolved by a telephone conference, the Examiner is invited to call the undersigned attorney at (949) 721-6305 or at the number listed below.

Respectfully submitted,

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Dated: May 5, 2009

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